

## AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

### Listing of Claims:

1. **(Currently Amended)** A method for displaying a quality of a wireless data transmission comprising:

receiving the wireless data transmission wherein the wireless data transmission includes multiple streams of data and originates from a spatial multiplexing system having multiple transmit antennae;

determining the quality of the wireless data transmission based on a quality parameter of the wireless data transmission **and a propagation channel estimate of the wireless data transmission**, ~~wherein the quality parameter is based on a ratio of signal statistics to error rate statistics;~~ and

displaying the quality of the wireless data transmission.

2. (Previously Presented) The method of claim 1 wherein determining the quality of the wireless data transmission based on a quality parameter of the wireless data transmission comprises:

determining a value of the quality parameter for each of the multiple streams of data.

3. (Original) The method of claim 1 wherein the wireless data transmission comprises multiple streams of data and determining the quality of the wireless data transmission based on a quality parameter the wireless transmission comprises:

determining an aggregate value of the quality parameter for the multiple streams of data.

4. **(Currently Amended)** The method of claim 2 wherein the quality parameter is ~~error rate statistics are~~ selected from a group consisting of a bit error rate, a packet error rate and a frame error rate.
5. **(Currently Amended)** The method of claim 3 wherein the quality parameter is ~~error rate statistics are~~ selected from a group consisting of a bit error rate, a packet error rate and a frame error rate.
6. **(Currently Amended)** The method of claim 2 wherein the quality parameter is ~~signal statistics are~~ selected from a group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-interference plus noise ratio.
7. **(Currently Amended)** The method of claim 3 wherein the quality parameter is ~~signal statistics are~~ selected from a group consisting of a signal-to-noise ratio, a carrier-to-interference ratio and a signal-to-interference plus noise ratio.
8. **(Previously Presented)** The method of claim 2 wherein the quality parameter is further based on the number of cyclic redundancy check failures.
9. **(Previously Presented)** The method of claim 3 wherein the quality parameter is further based on the number of cyclic redundancy check failures.

10. (Original) The method of claim 1 wherein the wireless data transmission comprises multiple streams of data and determining the quality of the wireless data transmission based on a quality parameter of the wireless data transmission comprises:

determining a propagation channel for the wireless data transmission; and

determining a value for the quality parameter based on the propagation channel.

11. (Currently Amended) The method of claim 10 wherein the quality parameter is error rate statistics are selected from a group consisting of a bit error rate of each of the multiple streams of data, a packet error rate of each of the multiple streams of data, a frame error rate of each of the multiple streams of data.

12. (Currently Amended) The method of claim 10 wherein the quality parameter is error rate statistics are selected from a group consisting of a bit error rate of the multiple streams of data, a packet error rate of the multiple streams of data, and a frame error rate of the multiple streams of data.

13. (Currently Amended) The method of claim 10 wherein the quality parameter is signal statistics are selected from a group consisting of a signal-to-noise ratio of each of the multiple streams of data, a carrier-to-noise ratio of each of the multiple streams of data, and a signal-to-interference plus noise ratio of each of the multiple streams of data.

14. **(Currently Amended)** The method of claim 10 wherein the quality parameter is ~~signal statistics are~~ selected from a group consisting of a signal-to-noise ratio of the multiple streams of data, a carrier-to-noise ratio of the multiple streams of data, and a signal-to-interference plus noise ratio of the multiple streams of data.

15-45. (Cancelled)

46. **(Currently Amended)** An apparatus for displaying the quality of a wireless data transmission comprising:

means for receiving the wireless data transmission wherein the wireless data transmission includes multiple streams of data and originates from a spatial multiplexing system having multiple transmit antennae;

means for determining the quality of the wireless data transmission based on a quality parameter of the wireless data transmission and a propagation channel estimate of the wireless data transmission, ~~wherein the quality parameter is based on a ratio of signal statistics to error rate statistics~~; and

means for displaying the quality of the wireless data transmission.

47. **(Previously Presented)** The apparatus of claim 46 wherein the means for determining the quality of the wireless data transmission based on a quality parameter of the wireless data transmission further comprises:

means for determining a value of the quality parameter for each of the multiple streams of data transmission.

48. (Original) The apparatus of claim 46 wherein the means for determining the quality of the wireless data transmission based on a quality parameter of the wireless data transmission further comprises:

means for determining an aggregate value of the quality parameter for the multiple streams of data.

49. (Original) The apparatus of claim 47 wherein the means for displaying the quality of the wireless transmission comprises means for displaying the value.

50. (Original) The apparatus of claim 48 wherein means for displaying the quality of the wireless transmission comprises means for displaying the aggregate value.

51. (Original) The apparatus of claim 49 wherein the means for displaying the value comprises LED indicators.

52. (Original) The apparatus of claim 49 wherein the means for displaying the value comprises an analog meter.

53. (Original) The apparatus of claim 50 wherein the means for displaying the value comprises separate sets of LED indicators wherein each of the separate sets of LED indicators corresponds to each of the multiple streams of data.

54. (Original) The apparatus of claim 50 wherein the means for displaying the aggregate value comprises an analog meter.

55. (Original) The apparatus of claim 49 wherein the quality parameter comprises a channel quality parameter and a data quality parameter and the means for displaying the value of the quality parameter comprises a first and second analog meter wherein the first analog meter displays the value of the channel quality parameter and the second analog meter displays the value of the data quality parameter.

56. (Original) The apparatus of claim 49 wherein the quality parameter comprises a channel quality parameter and a data quality parameter and the means for displaying the value of the quality parameter comprises a first and second set of LED indicators wherein the first set of LED indicators corresponds to the channel quality parameter and the second set of LED indicators corresponds to the data quality parameter.

57-73. (Cancelled)

74. (Previously Presented) A method according to claim 1, wherein the multiple streams comprising the wireless data transmission are received via two or more receive antennae.

75. (Previously Presented) An apparatus according to claim 48, further comprising:  
two or more receive antennae through which the means for receiving receives multiple streams of the wireless transmission.

76. (Currently Amended) An apparatus comprising:

a receiver, to receive a wireless data transmission wherein the wireless transmission includes multiple streams of data and originates from a spatial multiplexing system having multiple transmit antennae; and

a quality display unit, responsive to if not embedded within the receiver, to determine a quality of the received wireless data transmission based, at least in part, on an ascertained one or more quality parameter(s) associated with the wireless data transmission **and a propagation channel estimate of the wireless data transmission**, and to provide a display of such quality of the wireless data transmission, ~~wherein the quality parameter is based on a ratio of signal statistics to error rate statistics.~~

77. (Previously Presented) An apparatus according to claim 76, the quality display unit comprising:

a quality indicator processor, responsive to a channel estimator in the receiver, to determine a quality of the received wireless data transmission.

78. (Previously Presented) An apparatus according to claim 77, the quality display unit comprising:

a display, responsive to the quality indicator processor, to display the quality of the wireless data transmission.

79. (Cancelled)

80. (Previously Presented) An apparatus according to claim 76, the quality display unit to determine a quality value for each of the multiple spatial streams and to display at least a subset of the determined quality values.

81. (Previously Presented) An apparatus according to claim 76, the quality display unit to display a representation of a mathematical combination of the determined quality values for each of the multiple spatial streams.

82. (Previously Presented) An apparatus according to claim 76, further comprising:  
two or more receive antennae through which the receiver receives the wireless transmission.

83. (Previously Presented) An apparatus according the claim 76, wherein the determined quality comprises a channel quality parameter and a data quality parameter, the quality display unit including a first and second set of indicators, wherein the first set of indicators to display a representation of the channel quality parameter and the second set of indicators to display a representation of the data quality parameter.

84-88. (Cancelled)